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PTO/SB/21 (04-04) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE are required to respond to a collection of information unless it displays a valid OMB control number. Under the Papery **Application Number** 10/802,900 Filing Date TRANSM 03/17/2004 **FORM** First Named Inventor Rueckes, et al. Art Unit 2818 (to be used for all correspondence after initial filing) **Examiner Name** al Maria Maria Maria de **TBA** Attorney Docket Number 112020.167US1 NAN-4 CIP Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance communication Drawing(s) Fee Transmittal Form to Technology Center (TC) Appeal Communication to Board Licensing-related Papers Fee Attached of Appeals and Interferences Appeal Communication to TC Petition (Appeal Notice, Brief, Reply Brief) Amendment/Reply Petition to Convert to a Proprietary Information After Final **Provisional Application** Power of Attorney, Revocation Status Letter Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Terminal Disclaimer Identify below): **Extension of Time Request** Postcard Request for Refund **Express Abandonment Request** CD, Number of CD(s) Information Disclosure Statement Remarks Certified Copy of Priority 1. PTO Form 1449 (33 pgs.) Document(s) 2. 14 Publications Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Peter M. Dichiara Individual name Signature Date 08/25/2004 CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. Typed or printed name dig. 553 Suzanne M. Pineau Date 08/25/2004 Signature

This collection of information is required by 37 CFR 1.5. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 V.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Application of: RUECKES, et al.

Application No.: 10/802,900

Filed: March 17, 2004

For: Electromechanical Three-Trace

Junction Devices

Group Art Unit: 2818

Examiner: To Be Assigned

Attorney Docket No.: 112020.167 US1

(NAN-4CIP)

CERTIFICATE OF MAILING (37 C.F.R. § 1.8 a)

I hereby certify that this correspondence is being deposited with the United States Postal Service under 37 CFR 1.8a and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 25, 2004.

Suzanne M. Pineau

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97-98, and M.P.E.P. §609, Applicants hereby enclose Forms PTO-1449 that includes publications that have previously been cited in a prior patent application Serial No. 10/033,032 filed December 28, 2001 from which the above application claims priority under 35 U.S.C. §120. With the exception of the following list of publications identified below, pursuant to 37 C.F.R. § 1.98(d), no further copies of the previously cited art are enclosed.

Enclosed Publications

Document Number	<u>Date</u>	<u>Name</u>
2003/0124837	07/03/03	Rueckes, et al
2003/0021966	01/30/03	Rueckes, et al.
2003/0108480	06/2003	Baker et al.
3,970,887	07/1976	Smith et al.

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6,643,165	11/04/03	Segal, et al.

Other References (Author, Title, Date Pertinent pages, etc.)

Snow, E.S. et al., "Random Networks of Carbon Nanotubes as an Electronic Material." Applied Physics Letters, March 31, 2003, Vol. 82, No. 13, 2145-2147.

Bernholc et al., "Mechanical and Electrical Properties of Nanotubes", Annu. Rev. Mater. Res., 32 (2002) 347.

It is respectfully requested that the information above be expressly considered and that the publications be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

As this paper is being filed prior to the issuance of a first Office Action on the merits, no fee is believed to be due pursuant to 37 C.F.R. § 1.97(b)(3).

In the event a fee is due, the Commissioner is authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. <u>08-0219</u>.

Respectfully submitted,

Dated: August <u>25</u>, 2004

Peter M. Dichiara Registration No. 38,005

Attorney for Applicants

Hale and Dorr LLP 60 State Street Boston, Massachusetts 02109 (617) 526-6466 (telephone) (617) 526-5000 (facsimile)

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INFORMATION DISCLOS

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OF

Docket Number 112020.167US1 NAN-4 CIP Application Number 10/802,900

Applicant

Rueckes, Thomas, et al.

Filing Date
March 17, 2004

Group Art Unit 2818

	U.S. Patent Documents							
EXAMINER	DOCUMENT	DATE	NAME	CLASS	SUBCLASS	FILING DATE		
INITIAL	NUMBER					IF APPROPRIATE		
	5,346,683	09/13/94	Green et al.	423	447.2			
	5,424,054	06/13/95	Bethune et al.	423	447.2			
	5,456,986	10/10/95	Majetich et al.	428	403			
	5,482,601	01/09/96	Ohshima et al.	204	173			
	5,547,748	08/20/96	Ruoff et al.	428	323			
,	5,626,812	05/06/97	Ebbesen et al.	264	248			
	5,716,708	02/10/98	Lagow	428	408			
	5,753,088	06/19/98	Olk	204	173			
	5,780,101	07/14/98	Nolan et al.	427	216			
	5,903,010	05/11/99	Flory et al.	257	24			
10-10-10	5,925,465	07/20/99	Ebbesen et al.	428	408			
	5,928,450	07/27/99	Russell	156	169			
	5,946,930	09/07/99	Anthony	62	293			
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	5,993,697	11/30/99	Cohen et al.	252	502			
	6,031,711	02/29/00	Tennent et al.	361	303			
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	6,136,160	10/24/00	Hrkut et al.	204	192.16	• • • • • • • • • • • • • • • • • • • •		
	6,146,227	11/14/00	Mancevski	445	24			
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EXAMINER: Initial if citation is considered, whether or not citati	on is in conformance with MPEP § 609: Draw Line through

citation if not conformance and not considered. Include copy with next communication to applicant.

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Docket Number 112020.167US1 NAN-4 CIP Application Number 10/802,900

Applicant

Rueckes, Thomas, et al.

Filing Date G
March 17, 2004

Group Art Unit 2818

			. Patent Documents			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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	5,196,396	03/23/93	Lieber	505	1	
	5,252,835	10/12/93	Lieber et al.	250	492.1	
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	5,997,832	12/07/99	Lieber et al.	423	249	
	6,036,774	03/14/00	Lieber et al.	117	105	
	6,159,742	12/12/00	Lieber et al.	436	164	
	6,190,634 B1	02/20/01	Lieber et al.	423	439	
	5,590,078	12/31/96	Chatter	365	189.01	
	5,799,209	08/25/98	Chatter	395	876	
	5,838,165	11/17/98	Chatter	326	38	
	6,108,725	08/22/00	Chatter	710	56	
	6,138,219	10/24/00	Soman et al.	711	149	
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	4,853,893	08/01/89	Eaton, Jr. et al.	365	145	
	4,888,630	12/19/89	Paterson	357	23.5	
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	5,479,172	12/26/95	Smith et al.	342	51	
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Docket Number 112020.167US1 NAN-4 CIP Application Number 10/802,900

Applicant

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Filing Date
March 17, 2004

Group Art Unit 2818

			. Patent Documents			
EXAMINER	DOCUMENT	DATE	NAME	CLASS	SUBCLASS	FILING DATE
INITIAL	NUMBER					IF APPROPRIATE
	6,025,618	02/15/00	Chen	257	295	
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	6,128,214	10/03/00	Kuekes et al.	365	151	
	6,159,620	12/12/00	Heath et al.	428	615	
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	5,198,390	03/30/93	MacDonald et al.	437	203	
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	5,426,070	06/20/95	Shaw et al.	437	203	
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	5,719,073	02/17/98	Shaw et al.	437	228	
	5,846,849	12/08/98	Shaw et al.	438	52	
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	5,878,840	03/09/99	Tessum et al.	182	229	
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	4,701,842	10/20/87	Olnowich	364	200	
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Docket Number 112020.167US1 NAN-4 CIP Application Number 10/802,900

Applicant

Rueckes, Thomas, et al.

Filing Date Group Art Unit
March 17, 2004 2818

		U.S	. Patent Documents		-	
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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·	5,271,862	02/24/98	Sartore et al.	395	445	
	5,781,717	07/14/98	Wu et al.	395	182.06	,
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INITIAL	NUMBER				SS	YES	NO			
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INF	ORMATION I			112020.167US1 NAN-4 CIP	10/802,900
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				Filing Date	Group Art Unit
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		Foreign I	Patent Docume	nts			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLA SS	TRANS	LATION
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	1 046 613 A2	10/25/00	EP				•
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	WO 99/65821	12/23/99	PCT				
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EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.					

INFORMATION DISCLOSURE				Docket Number 112020.167US1 NAN-4 CIP	Application Number 10/802,900	
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Sheet	6	OF	33	Filing Date March 17, 2004	Group Art Unit 2818	
Sheet	6	OF	33	March 17, 2004	2818	

	Foreign Patent Documents								
EXAMINER INITIAL									
						YES	NO		
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INFORMATION DISCLOSURE IN AN APPLICATION (Use several sheets if necessary)				Docket Number Application Number 112020.167US1 10/802,900 NAN-4 CIP		
				Applicant Rueckes, Thomas, et al.		
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Sheet	7	OF	33	March 17, 2004	2818	

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A23	Hu, Jiangtao et al. "Controlled Growth and Electrical Properties of Heterojunctions
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A27	Cui, Yi et al. "Functional Nanoscale Electronic Devices Assembled Using Silicon
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Filing Date
March 17, 2004

Group Art Unit 2818

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLAS S	FILING DATE IF		
	4,324,814	4/13/82	Reichert	427	86	APPROPRIATE		
				+				
-	4,378,629	4/5/83	Bozlev et al.	29	580	,=		
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(Use several sheets if necessary)

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Docket Number 112020.167US1 NAN-4 CIP

Application Number 10/802,900

Applicant

Rueckes, Thomas, et al.

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